

Amendments to the Claims/Listing of Claims

Claim 1. (Currently Amended) An apparatus ~~(10, 12, 14)~~ for use in an industrial process in which for communicating data and control signals it is connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that in said apparatus ~~(10, 12, 14)~~ a software apparatus model ~~(20, 22, 24)~~ is memorized which contains a comprehensive mimic image of said apparatus including its parameters, functionality and sequence programs.

Claim 2. (Currently Amended) The apparatus as set forth in claim 1, characterized in that said apparatus model ~~(20, 22, 24)~~ is formulated in a ~~uniform~~ program language with which said functionality and said parameters of said apparatus ~~(10, 12, 14)~~ can be explicitly simulated.

Claim 3. (Currently Amended) The apparatus as set forth in claim 1, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorized in a version permitting ~~optimum~~ use to be made of the available memory capacity in said apparatus ~~(10, 12, 14)~~.

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Claim 4. (Currently Amended) The apparatus as set forth in claim 1, characterized in that said apparatus model ~~(20, 22, 24)~~ is modifiable by means of a software program.

Claim 5. (Currently Amended) The apparatus as set forth in claim 1, characterized in that the access for reading and writing said apparatus model ~~(20, 22, 24)~~ is made possible by means of a software program.

Claim 7. (Cancelled)

Claim 8. (Currently Amended) The apparatus as set forth in claim 1, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

Claim 9. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 1, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models

~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 10. (Currently Amended) The plant as set forth in claim 9, characterized in that said apparatus models ~~(20', 22', 24')~~ are modifiable by said central control unit ~~(18)~~ depending on the result of simulation.

Claim 11. (Currently Amended) A method of simulating the operation of a plant as set forth in claim 9, characterized by it comprising the steps of loading apparatus models ~~(20', 22', 24')~~ of said apparatuses ~~(10, 12, 14)~~ to be employed in said plant into said central control unit ~~(18)~~ and simulating the operation of said plant in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~ by means of a software program sequenced in said control unit ~~(18)~~.

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Claim 12. (Currently Amended) The method as set forth in claim 11, characterized by modifying said apparatus models ~~(20, 22, 24)~~ by said central control unit ~~(18)~~ as a function of the result of simulation.

Claim 13. (Currently Amended) The apparatus as set forth in claim 2, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorized in a version permitting optimum use to be made of the available memory capacity in said apparatus ~~(10, 12, 14)~~.

Claim 14. (Currently Amended) The apparatus as set forth in claim 2, characterized in that said apparatus model ~~(20, 22, 24)~~ is modifiable by means of a software program.

Claim 15. (Currently Amended) The apparatus as set forth in claim 3, characterized in that said apparatus model ~~(20, 22, 24)~~ is modifiable by means of a software program.

Claim 16. (Currently Amended) The apparatus as set forth in claim 2, characterized in that the access for reading and writing said apparatus model ~~(20, 22, 24)~~ is made possible by means of a software program.

Claim 17. (Currently Amended) The apparatus as set forth in claim 3, characterized in that the access for reading and writing said apparatus model ~~(20, 22, 24)~~ is made possible by means of a software program.

Claim 18. (Currently Amended) The apparatus as set forth in claim 4, characterized in that the access for reading and writing said apparatus model ~~(20, 22, 24)~~ is made possible by means of a software program.

Claims 19-23 (Cancelled)

Claim 24. (Currently Amended) The apparatus as set forth in claim 2, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

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Claim 25. (Currently Amended) The apparatus as set forth in claim 3, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

Claim 26. (Currently Amended) The apparatus as set forth in claim 4, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

Claim 27. (Currently Amended) The apparatus as set forth in claim 5, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

Claim 28. (Currently Amended) The apparatus as set forth in claim 6, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software program.

Claim 29. (Currently Amended) The apparatus as set forth in claim 7, characterized in that said apparatus model ~~(20, 22, 24)~~ is memorizable on a data carrier and usable by a software

program.

Claim 30. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 2, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 31. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 3, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 32. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 4, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 33. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 5, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 34. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 6, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said

apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 35. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 7, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 36. (Currently Amended) A plant including several apparatuses ~~(10, 12, 14)~~ as set forth in claim 8, connected to a central control unit ~~(18)~~ via a bus ~~(16)~~, characterized in that said apparatus models ~~(20, 22, 24)~~ are loadable into said control unit ~~(18)~~, that in said control unit ~~(18)~~ a software program is provided with the aid of which in using said loaded apparatus models ~~(20', 22', 24')~~ the operation of said plant can be simulated for testing it in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~.

Claim 37. (Currently Amended) A method of simulating the operation of a plant as set forth in claim 10, characterized by it comprising the steps of loading apparatus models ~~(20', 22', 24')~~ of said apparatuses ~~(10, 12, 14)~~ to be employed in said plant into said central control unit ~~(18)~~ and simulating the operation of said plant in including all parameters and functionalities contained in said apparatus models ~~(20', 22', 24')~~ by means of a software program sequenced in said control unit ~~(18)~~.